



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

BULLETIN

OF THE

TORREY BOTANICAL CLUB

VOL. 39

FOUNDED BY WILLIAM HENRY LEGGETT, 1870

EDITOR
PHILIP DOWELL

ASSOCIATE EDITORS

JEAN BROADHURST
ERNEST DUNBAR CLARK
ALEXANDER WILLIAM EVANS

MARSHALL AVERY HOWE
HERBERT MAULE RICHARDS
NORMAN TAYLOR

NEW YORK
1912
PUBLISHED FOR THE CLUB
THE NEW ERA PRINTING COMPANY
LANCASTER, PA.

PRESS OF
THE NEW ERA PRINTING COMPANY
LANCASTER, PA.

CONTENTS

BRITTON, NATHANIEL LORD. Studies of West Indian plants—IV	1
LIVINGSTON, BURTON E., and ESTABROOK, ARTHUR H. Observations on the degree of stomatal movement in certain plants	15
MAXON, WILLIAM R. Notes on the North American species of <i>Phanerophlebia</i>	23
DORSEY, M. J. Variation in the floral structures of <i>Vitis</i> (plates 1-3)	37
DACHNOWSKI, ALFRED. The relation of Ohio bog vegetation to the chemical nature of peat soils	53
SEAVER, FRED J. Studies in pyrophilous fungi—III. The viability of the spores of <i>Pyronema</i> (plate 4)	63
BICKNELL, EUGENE P. The ferns and flowering plants of Nantucket—IX	69
BRAINERD, EZRA. Violet hybrids between species of the <i>palmata</i> group (plates 5-7)	85
RYDBERG, PER AXEL. Studies on the Rocky Mountain flora—XXVI	99
FROMME, FRED D. Sexual fusions and spore development in the flax rust (plates 8, 9)	113
DODGE, BERNARD O. Methods of culture and the morphology of the archi- carp in certain species of the <i>Ascobolaceae</i> (plates 10-15)	139
HOWE, R. HEBER, JR. The lichens of the Linnean Herbarium with remarks on Acharian material	199
EVANS, ALEXANDER W. <i>Hepaticae</i> of Puerto Rico—XI (plates 16, 17)	209
ROBINSON, WINIFRED J. A taxonomic study of the <i>Pteridophyta</i> of the Hawaiian Islands—I (plates 18-20)	227
BROADHURST, JEAN. The genus <i>Struthiopteris</i> and its representatives in North America—I (plates 21, 22)	257
LORENZ, ANNIE. Vegetative reproduction in the New England <i>Frullaniae</i>	279
SLOSSON, MARGARET. New ferns from Tropical America (plate 23)-	285
MACKENSEN, BERNARD. Three new species of <i>Opuntia</i> , with a discussion of the identity of <i>Opuntia Lindheimeri</i>	289
RYDBERG, PER AXEL. Studies on the Rocky Mountain flora—XXVII	301
WILLISTON, RUTH. Discoid gemmae in <i>Radula</i>	329
BERRY, EDWARD W. Notes on the genus <i>Widdringtonites</i> (plates 24, 25)-	341
BROADHURST, JEAN. The genus <i>Struthiopteris</i> and its representatives in North America—II (plates 26-29)	357
BERRY, EDWARD W. Contributions to the Mesozoic flora of the Atlantic coastal plain—VIII. Texas (plates 30-32)	387
DARLING, CHESTER ARTHUR. Mitosis in living cells	407
BICKNELL, EUGENE P. The ferns and flowering plants of Nantucket—X	415

SKINNER, J. J., and BEATTIE, J. H. Effect of asparagin on absorption and growth in wheat (plate 33)	- - - - -	429
ALDEN, ISABEL. A contribution to the life history of <i>Uvularia sessilifolia</i> (plates 34, 35)	- - - - -	439
ANDREWS, F. M. Protoplasmic streaming in <i>Mucor</i>	- - - - -	455
SAFFORD, WILLIAM EDWIN. Desmos the proper generic name for the so-called <i>Unonas</i> of the Old World	- - - - -	501
PICKETT, F. L. A case of changed polarity in <i>Spirogyra elongata</i> (plate 36)	- - - - -	509
DAVIS, BRADLEY MOORE. Was Lamarck's evening primrose (<i>Oenothera Lamarckiana</i> Seringe) a form of <i>Oenothera grandiflora</i> Solander? (plates 37-39)	- - - - -	519
SCHREINER, OSWALD, and SKINNER, J. J. The effect of guanidin on plants	- - - - -	535
ROBINSON, C. B. <i>Polycodium</i>	- - - - -	549
ROBINSON, WINIFRED J. A taxonomic study of the Pteridophyta of the Hawaiian Islands—II (plates 40-44)	- - - - -	567
EVANS, ALEXANDER W. New West Indian <i>Lejeuneae</i> —II (plate 45)	- - - - -	603

INDEX TO AMERICAN BOTANICAL LITERATURE - - - - -	29,
81, 133, 205, 249, 293, 349, 411, 447, 511, 561, 613	

INDEX TO VOLUME 39 - - - - -	621
------------------------------	-----

Dates of Publication

No. 1, for January.	Pages 1- 36.	Issued 10 February, 1912.
No. 2, for February.	37- 84.	9 March, 1912.
No. 3, for March.	85-138.	18 April, 1912.
No. 4, for April.	139-208.	17 May, 1912.
No. 5, for May.	209-256.	8 June, 1912.
No. 6, for June.	257-300.	10 July, 1912.
No. 7, for July.	301-356.	23 July, 1912.
No. 8, for August.	357-414.	16 August, 1912.
No. 9, for September.	415-454.	9 September, 1912.
No. 10, for October.	455-518.	2 November, 1912.
No. 11, for November.	519-566.	18 November, 1912.
No. 12, for December.	567-631.	31 December, 1912.

Errata

Page 96, line 8, for *Viloo* read *Viola*.

Page 152, line 4, for *Cubomia* read *Cubonia*.

Page 152, line 16, for *violaceus* read *violascens*.

Page 235, line 12 from below, for 1831 read 1827.

Page 244, line 2, for 1841 read 1832.

Page 244, line 7, for 1841 read 1844.

Page 246, line 5, for 1827 read 1829.

Page 246, line 4 from below, for 1827 read 1826.

Page 247, line 4 from below, for 1832 read 1829.

Page 248, line 20, for 1832 read 1827.

Page 313, line 22, for *calceoliformis* read *calceoliforme*.

Page 377, line 14, for *tubulare* read *tabulare*.